Math 9 Assignment #3c Due Date: _____

Name: _____

Mark _____ / 36

Directions: All questions must be completed on loose leaf. A calculator is allowed. Please reduce any fractions to lowest terms. Place a box around your final answer. **ALL WORK MUST BE SHOWN FOR FULL VALUE.**

Part A: **/12**

1) Evaluate each of the following: (2 marks each)

a) $\sqrt{\frac{36}{121}}$ **b)** $\frac{4}{5}-\left(\frac{6}{10}\right)$ **c) -3.1 x (-0.9)** **d)** $\frac{8}{12}\div\left(\frac{-3}{4}\right)$

2) Write two rational numbers between the two numbers below. (value 2)

$-\frac{1}{5}, -\frac{3}{5}$

3) Is the following fraction a perfect square? Explain how you know. (value 2)

$\frac{125}{245}$

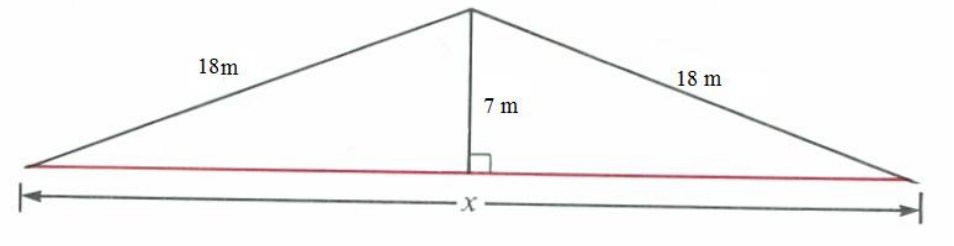
Part B: Please answer all questions. 3 marks each **/12**

1) Find a) $\sqrt{16900}$, b) $\sqrt{2.56}$ c) $\sqrt{\frac{147}{363}}$

2) A carpenter has 144m of baseboard. He installs 2/3 of the baseboard in one room. He installs $\frac{2}{8}$ of the original amount of the baseboard in another room. How much baseboard does he have left?

3) The temperature in Richmond, BC, at 1:00 p.m. was 5°C. The temperature drops 1.6°C each hour. What will the temperature be at 5:00 P.M.? Justify your answer.

4) Find the length, x, of this roof truss.

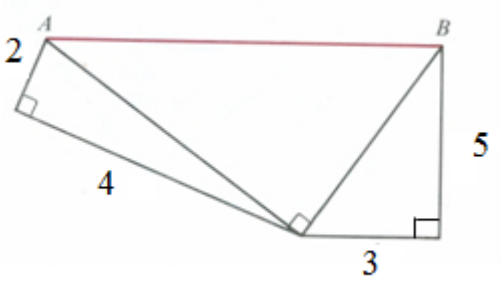


<u>Part C:</u> Complete question 1 and choose any <u>2</u> of the remaining 3 questions. 4 marks each /12

1) Solve:

$$\left[\frac{1}{3}\times\left(\frac{2}{5}\right)+\left(-\frac{3}{7}\right)\right]\div\frac{3}{5}$$

2) In the diagram, find the length of AB



3) Which number, $\sqrt{9}+\sqrt{139}$ or $\sqrt{9+139}$ is greater? Explain your reasoning.

4) A student evaluated the following expression and the answer was 6.76 to the nearest hundredth. Another student evaluated the expression and the answer was 10.63 to the nearest hundredth.

$$\frac{19.2-(-5.4)\div 0.6+4.3}{(-2)\times(-1.5)+3.7}$$

a) Which answer is correct?
b) What mistake did one student likely make?